CATALYTIC COMBUSTOR FOR A GAS TURBINE

ABSTRACT OF THE DISCLOSURE

A catalytic combustor for a gas turbine includes a stack of metal strips, each strip having an inlet end and an outlet end. The inlet ends of both sides of the strip are uncoated, to limit the temperature and maintain rigidity of the strip at the inlet end. In one embodiment, both sides of the strip have a light-off band, coated with catalyst, and adjacent to the uncoated inlet band. One side of the strip (Side A) also includes at least one combustion band, while the other side (Side B) has no corresponding coated band. The strips are arranged such that Side A of a given strip inside the stack faces Side A of an adjacent strip, and Side B of a strip inside the stack faces Side B of an adjacent strip. The resulting structure prevents overheating of the combustor, maintains its rigidity, and reduces the pressure drop through the combustor.